

IO27154
-001



Bayer CropScience

November 5, 2014

Document Processing Desk 6(a)(2)
Office of Pesticide Programs (7504P)
U. S. Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202-4501

Update to IO26789
-001

RE: 6(a)(2) report update – INRI-0221a and INRI-0221b; alleged bee incident in Secor, IL involving Leverage 360 (264-1104) and Stratego YLD (264-1093)

Dear Sir/Madam:

Bayer CropScience
RTP
P. O. Box 12014
RTP, NC 27705
Tel. 919 549-2000

Bayer CropScience LP (Bayer) is updating its August 11, 2014 submission of information regarding the details of an alleged bee incident involving the products listed above. Bayer has conducted analytical analysis of bee samples collected at the referenced locations and is providing updated incident reports as well as the analytical results at both locations.

The information with this letter is being submitted to the EPA pursuant to the Agency's interpretation of requirements imposed on registrants by Section 6(a)(2) of FIFRA. This information does not necessarily constitute additional factual information regarding potential unreasonable adverse effects within the meaning of 6(a)(2). It is being submitted to enable the Agency to make its own assessment of the information.

If you have questions or concerns, please do not hesitate to contact me at any time.

Sincerely,

A handwritten signature in cursive script that reads "S. Gerret Van Duyn".

Gerret Van Duyn
Compliance Manager

CC: Meredith Laws, US EPA Insecticide Branch Chief
AE Coordinator, CA Department of Pesticide Regulation
Jeanine Broughel, NY Department of Environmental Conservation
Sundee Williams, Bayer CropScience LP

/attachment

Bayer CropScience, Regulatory Affairs

Bayer CropScience - 6(a)(2) Incident Report Form - Fish, wildlife, plants, & other non-target organisms

Provide all known, required information. If required data field information is unknown, designate as such in appropriate area



Bayer CropScience

Section 1 - Administrative Data - Contact Information

Reporter Name*	[REDACTED]	Contact Person*	Mark O'Rourke
Mailing Address	[REDACTED]	Mailing Address	10833 N 2400 East Rd.
City	Secor	City	Downs
State	IL	State	IL
Zip Code	61771	Zip Code	61736
Phone Number	[REDACTED]	Phone Number	(309) 846-2427
Submission Date	11/5/2014	Date Registrant became aware	8/1/14
Incident Status	Update	Was incident part of a larger study?	No

*Individual Reporting to Bayer / If update, include date of original submission

*Person with additional details. Usually internal Bayer personnel

Section 2 - Pesticide(s) Involved

Product 1	Product 2	Product 3
Product Name	Product Name	Product Name
Leverage 360	Stratego YLD	
A.I. Name(s)	A.I. Name(s)	A.I. Name(s)
Imidacloprid, Beta-cyfluthrin	Trifloxystrobin, Propiconazole	
EPA Reg. #	EPA Reg. #	EPA Reg. #
264-1104	264-1093	
Exposed to concentrate prior to dilution?	Exposed to concentrate prior to dilution?	Exposed to concentrate prior to dilution?
No	No	
Formulation	Formulation	Formulation
SC	SC	

*A.I. = Active Ingredient

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*A.I. = Active Ingredient

Section 3 - Reported Circumstances

Evidence label was not followed?	No	How did exposure occur?	Direct Contact
Applicator certified PCO?	Yes		
Incident Site	agricultural (specify crop)	Situation (act of using product)	application
	Soybean		

Brief Description of incident circumstances (800 characters):

Following application of listed products, dead / dying bees were observed at apiaries located near the treated fields.

INRI # (completed by 6(a)(2) reporter) INRI-0221a

EPA Category ONT

Page 1 of 2

Bayer CropScience - 6(a)(2) Incident Report Form - Fish, wildlife, plants, & other non-target organisms



Provide all known, required information. If required data field information is unknown, designate as such in appropriate area

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Section 4 - Exposure Information

List species affected and number of individuals per species	Honeybees, at least 300 on one hive and 100 on the other 3 three hives.			
List symptoms or adverse effects	death			
Magnitude of effect (e.g. miles of stream, area, etc.)	4 hives, single apiary location	Application Rate (with units)	unknown	
If plant, type of plant	N/A	Intended Use site (e.g. field)	Agricultural Field	
List name and results of any lab tests performed; If lab reports are available, submit along with this report.	None known			
Description of habitat and the circumstances under which the incident occurred.	Hives close to agricultural fields; potential impact by nearby applications of pesticides.			
Distance from Treatment Site	0.5	miles	Application Method	Surface Application

This box can be used to provide any explanatory or qualifying information surrounding the incident (add additional pages if necessary)

Linked to Case # IL-ED-140801-01

Reported as INRI-0221a and INRI-0221b to capture details of both applications.

A grower in the El Paso, IL area reported the issue to a BCS sales representative and described the issue where the grower had two separate applications in the same vicinity between 11:00 a.m. and Noon on Friday, August 1st. Beekeeper [REDACTED] contacted the grower between 1:30 and 2:00 p.m. indicating he observed at least 300 bees dead and dying in front of one of his 4 hives at his home apiary location. By the time Bayer personnel arrived on site at 5:00 p.m. the additional three hives appeared to have 100 or so dead / dying bees in front of them as well. AgLand FS was applying a mix of Leverage + Stratego YLD + Micronutrients on soybeans that were within 1/2 mile of the apiary.

Update - 11/5/2014 - residue analysis confirms presence of olefin and 5-hydroxy metabolites of imidacloprid. Imidacloprid identified as a likely cause of bee mortality.

Form Options & Submission:

INRI # (completed by 6(a)(2) reporter)

INRI-0221a

EPA Category

ONT

Page 2 of 2

Bayer CropScience - 6(a)(2) Incident Report Form - Fish, wildlife, plants, & other non-target organisms



Provide all known, required information. If required data field information is unknown, designate as such in appropriate area

Bayer CropScience

Section 1 - Administrative Data - Contact Information

Reporter Name*	[REDACTED]	Contact Person*	Mark O'Rourke
Mailing Address	[REDACTED]	Mailing Address	10833 N 2400 East Rd.
City	Secor	City	Downs
State	IL	State	IL
Zip Code	61771	Zip Code	61736
Phone Number	[REDACTED]	Phone Number	(309) 846-2427
Submission Date	11/5/2014	Date Registrant became aware	8/1/14
Incident Status	Update	Was incident part of a larger study?	No

*Individual Reporting to Bayer / If update, include date of original submission

*Person with additional details. Usually internal Bayer personnel

Section 2 - Pesticide(s) Involved

Product 1	Product 2	Product 3	
Product Name	Stratego YLD	Product Name	
A.I. Name(s)	Trifloxystrobin, Propiconazole	A.I. Name(s)	
EPA Reg. #	264-1093	EPA Reg. #	
Exposed to concentrate prior to dilution?	No	Exposed to concentrate prior to dilution?	N/A
Formulation	SC	Formulation	

*A.I. = Active Ingredient

*A.I. = Active Ingredient

*A.I. = Active Ingredient

Section 3 - Reported Circumstances

Evidence label was not followed?	No	How did exposure occur?	Direct Contact
Applicator certified PCO?	Yes		
Incident Site	agricultural (specify crop)	Situation (act of using product)	application
	Corn		

Brief Description of incident circumstances (800 characters):

Following application of listed products, dead / dying bees were observed at apiaries located near the treated fields.

INRI # (completed by 6(a)(2) reporter) INRI-0221b

EPA Category ONT

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Bayer CropScience - 6(a)(2) Incident Report Form - Fish, wildlife, plants, & other non-target organisms



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Bayer CropScience

Section 4 - Exposure Information

List species affected and number of individuals per species	Honeybees, at least 300 on one hive and 100 on the other 3 three hives.		
List symptoms or adverse effects	death		
Magnitude of effect (e.g. miles of stream, area, etc.)	4 hives, single apiary location	Application Rate (with units)	unknown
If plant, type of plant	N/A	Intended Use site (e.g. field)	Agricultural Field
List name and results of any lab tests performed; If lab reports are available, submit along with this report.	None known		
Description of habitat and the circumstances under which the incident occurred.	Hives close to agricultural fields; potential impact by nearby applications of pesticides.		
Distance from Treatment Site	300	feet	Application Method
			Aerial Application

This box can be used to provide any explanatory or qualifying information surrounding the incident (add additional pages if necessary)

Linked to Case # IL-ED-140801-01

Reported as INRI-0221a and INRI-0221b to capture details of both applications.

A grower in the El Paso, IL area reported the issue to a BCS sales representative and described the issue where the grower had two separate applications in the same vicinity between 11:00 a.m. and Noon on Friday, August 1st. Beekeeper [REDACTED] contacted the grower between 1:30 and 2:00 p.m. indicating he observed at least 300 bees dead and dying in front of one of his 4 hives at his home apiary location. By the time Bayer personnel arrived on site at 5:00 p.m. the additional three hives appeared to have 100 or so dead / dying bees in front of them as well. Aerial Crop Services, operated by Paul Kruse based in the Colfax, IL area applied Stratego YLD + Zinc + Adjuvant on corn approximately 300 ft to the north of the affected apiary.

Update - 11/5/2014 - residue analysis confirms presence of olefin and 5-hydroxy metabolites of imidacloprid. Imidacloprid identified as a likely cause of bee mortality.

Form Options & Submission:

INRI # (completed by 6(a)(2) reporter) INRI-0221b

EPA Category ONT

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Analytical Results: Dead Bee Samples from Secor, IL incident (8/1/2014)

Two dead bee samples from the August 1, 2014 incident at Secor, Illinois [Linked to Case # IL-ED-140801-01 and reported as INRI-0221a and INRI-0221b] were submitted to the Residue Analysis Laboratory, Bayer CropScience, Research Triangle Park, North Carolina.

Results of the analysis were as follows.

Sample ID	Sample Weight (g)	Olefin (ppb)	5-Hydroxy (ppb)	Imidacloprid (ppb)	Total (ppb)
IL-2014 Secor #1	1.456	27.6	16.2	184.3	228.1
IL-2014 Secor #2	1.365	19.2	14.3	120.6	154.1

Interpretation: The presence of olefin and 5-hydroxy metabolites indicates that the bees were exposed to imidacloprid prior to death. The concentrations measured are greater than the reported LD₅₀ dose of 3.7 ng/bee (approximately = 37 ng/g bee) for imidacloprid. Therefore, Imidacloprid is a likely cause of the observed mortality.